

# PATENT COOPERATION TREATY

# PCT

## INTERNATIONAL SEARCH REPORT

(PCT Article 18 and Rules 43 and 44)

Applicant's or agent's file reference <b>P03/122-do/rg</b>	<b>FOR FURTHER ACTION</b> <div style="float: right; font-size: small;">see Form PCT/ISA/220 as well as, where applicable, Item 5 below.</div>	
International application No. <b>PCT/EP2004/006573</b>	International filing date (day/month/year) <b>18/06/2004</b>	(Earliest) Priority Date (day/month/year) <b>07/07/2003</b>
Applicant  <b>MERCK PATENT GMBH</b>		

This International Search Report has been prepared by this International Searching Authority and is transmitted to the applicant according to Article 18. A copy is being transmitted to the International Bureau.

This International Search Report consists of a total of 6 sheets.

☒ It is also accompanied by a copy of each prior art document cited in this report.

**1. Basis of the report**

a. With regard to the **language**, the international search was carried out on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.

☐ The international search was carried out on the basis of a translation of the international application furnished to this Authority (Rule 23.1(b)).

b. ☐ With regard to any **nucleotide and/or amino acid sequence** disclosed in the international application, see Box No. I.

2. ☐ **Certain claims were found unsearchable** (See Box II).

3. ☐ **Unity of invention is lacking** (see Box III).

4. With regard to the **title**,

☒ the text is approved as submitted by the applicant.

☐ the text has been established by this Authority to read as follows:

5. With regard to the **abstract**,

☐ the text is approved as submitted by the applicant.

☒ the text has been established, according to Rule 38.2(b), by this Authority as it appears in Box No. IV. The applicant may, within one month from the date of mailing of this international search report, submit comments to this Authority.

6. With regards to the **drawings**,

a. the figure of the **drawings** to be published with the abstract is Figure No. \_\_\_\_\_

☐ as suggested by the applicant.

☐ as selected by this Authority, because the applicant failed to suggest a figure.

☐ as selected by this Authority, because this figure better characterizes the invention.

b. ☐ none of the figures is to be published with the abstract.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2004/006573

Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

The present invention relates to malonamide derivatives of formula A-D-B-1, as inhibitors of raf-kinase and the use of the compounds of formula I for the manufacture of a pharmaceutical composition.

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/006573

## A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C07D213/68 C07D413/12 A61K31/44 A61P35/00

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C07D

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, CHEM ABS Data, WPI Data, BEILSTEIN Data

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 00/26197 A (SQUIBB BRISTOL MYERS CO) 11 May 2000 (2000-05-11) example 57 -----	1-28
A	WO 02/074730 A (MERCK PATENT GMBH ; GOODMAN SIMON (DE); SCHADT OLIVER (DE); JONCZYK AL) 26 September 2002 (2002-09-26) claims; examples -----	1-31
P,Y	WO 2004/037789 A (AMENDT CHRISTIANE ; MERCK PATENT GMBH (DE); SCHADT OLIVER (DE); ZENKE) 6 May 2004 (2004-05-06) claims; examples -----	1-31
P,Y	WO 2004/019941 A (AMENDT CHRISTIANE ; MERCK PATENT GMBH (DE); SCHADT OLIVER (DE); ZENKE) 11 March 2004 (2004-03-11) claims; examples -----	1-31
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☒ Further documents are listed in the continuation of box C.☒ Patent family members are listed in annex.

## \* Special categories of cited documents :

\*A\* document defining the general state of the art which is not considered to be of particular relevance

\*E\* earlier document but published on or after the international filing date

\*L\* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

\*O\* document referring to an oral disclosure, use, exhibition or other means

\*P\* document published prior to the international filing date but later than the priority date claimed

\*T\* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

\*X\* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

\*Y\* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.

\*Z\* document member of the same patent family

Date of the actual completion of the international search

21 December 2004

Date of mailing of the international search report

28/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2  
NL - 2280 HV Rijswijk  
Tel. (+31-70) 340-2040, Tx. 31 651 epo nl,  
Fax: (+31-70) 340-3016

Authorized officer

Menegaki, F

## INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP2004/006573

## C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	EP 0 156 456 A (SAWAI SEIYAKU KK) 2 October 1985 (1985-10-02) claims; examples -----	1-29
X	NEHRING; SEELIGER ET AL: "Umsetzung von 2-Alkyl-oxazolinen mit Phenylisocyanat" JUSTUS LIEBIGS ANNALEN DER CHEMIE, vol. 698, 1966, pages 167-173, XP009041896 compound 7 -----	30
X	JERCHEL, DIETRICH ET AL: "N-Pyridylaminophenole aus Pyridylaminophenyläthern; eine neue Umlagerungsreaktion" CHEMISCHE BERICHTE, vol. 92, 1959, pages 724-731, XP009041907 page 730, line 13 - line 18 -----	31
X	MUSSER ET AL.: "N-Arylmethoxyphenyl- and N-Arylmethoxynaphthyl-sulfonamides" J.MED.CHEM., vol. 32, no. 6, 1989, pages 1176-1183, XP002300915 page 1183, right-hand column; compound 20 -----	31

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/EP2004/006573

## Box II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This International Search Report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.:  
because they relate to subject matter not required to be searched by this Authority, namely:  
  
Although claims 12-29 are directed to a method of treatment of the human/animal body, the search has been carried out and based on the alleged effects of the compound/composition.
2. ☐ Claims Nos.:  
because they relate to parts of the International Application that do not comply with the prescribed requirements to such an extent that no meaningful International Search can be carried out, specifically:
3. ☐ Claims Nos.:  
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

## Box III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this International Search Report covers all searchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.
3. ☐ As only some of the required additional search fees were timely paid by the applicant, this International Search Report covers only those claims for which fees were paid, specifically claims Nos.:
4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this International Search Report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

### Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest.
- ☐ No protest accompanied the payment of additional search fees.

# INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

PCT/EP2004/006573

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0026197	A	11-05-2000	AU 1707700 A	22-05-2000
			CA 2348267 A1	11-05-2000
			EP 1127054 A1	29-08-2001
			JP 2002528533 T	03-09-2002
			WO 0026197 A1	11-05-2000
			US 6624184 B1	23-09-2003
			US 2004082562 A1	29-04-2004
			US 2004102497 A1	27-05-2004
WO 02074730	A	26-09-2002	DE 10112771 A1	26-09-2002
			CA 2440644 A1	26-09-2002
			WO 02074730 A1	26-09-2002
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			HU 0303514 A2	28-01-2004
			JP 2004525925 T	26-08-2004
			MX PA03008215 A	29-01-2004
			US 2004092454 A1	13-05-2004
WO 2004037789	A	06-05-2004	WO 2004037789 A2	06-05-2004
WO 2004019941	A	11-03-2004	WO 2004019941 A1	11-03-2004
EP 0156456	A	02-10-1985	JP 1737022 C	26-02-1993
			JP 4022901 B	20-04-1992
			JP 60166651 A	29-08-1985
			JP 61047453 A	07-03-1986
			JP 61056126 A	20-03-1986
			JP 61072770 A	14-04-1986
			JP 61076448 A	18-04-1986
			AT 47993 T	15-12-1989
			AU 576215 B2	18-08-1988
			AU 3826385 A	15-08-1985
			CA 1248530 A1	10-01-1989
			DE 3574249 D1	21-12-1989
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			FI 850405 A	09-08-1985
			HU 37591 A2	23-01-1986
			HU 196170 B	28-10-1988
			NO 850475 A	09-08-1985
			US 4822791 A	18-04-1989
			US 4634777 A	06-01-1987
			US 4755506 A	05-07-1988